

ABSTRACT

Electricities generated using fossil fuel are limited. Therefore it is necessary to create a renewable power plant, such as solar power plant which uses solar modules as an electricity generators. Each solar module has different characteristics that can affect the performance of solar power plant. In this study, a power monitoring system is built and implement to monitor the output of the solar power plant which consist of efficiency, and power loss in P building. The characterization of solar module is done by determining the “I-V” curve and finding the internal resistance of the solar module. The “I-V” curve is obtained by recording the current and voltage for various resistance. The temperature, solar radiation, and humidity are also real time recorded. By getting the “I-V” curve, internal resistance, efficiency, and power loss of the solar power plant can be real time monitored.